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in accordance with appendix S of this part for the annual standard.

- (f) The 1-hour primary standard is met when the three-year average of the annual 98th percentile of the daily maximum 1-hour average concentration is less than or equal to 100 ppb, as determined in accordance with appendix S of this part for the 1-hour standard.
- (g) The secondary standard is attained when the annual arithmetic mean concentration in a calendar year is less than or equal to 0.053 ppm, rounded to three decimal places (fractional parts equal to or greater than 0.0005 ppm must be rounded up). To demonstrate attainment, an annual mean must be based upon hourly data that are at least 75 percent complete or upon data derived from manual methods that are at least 75 percent complete for the scheduled sampling days in each calendar quarter.

[75 FR 6531, Feb. 9, 2010]

### § 50.12 National primary and secondary ambient air quality standards for lead.

- (a) National primary and secondary ambient air quality standards for lead and its compounds, measured as elemental lead by a reference method based on appendix G to this part, or by an equivalent method, are: 1.5 micrograms per cubic meter, maximum arithmetic mean averaged over a calendar quarter.
- (b) The standards set forth in this section will remain applicable to all areas notwithstanding the promulgation of lead national ambient air quality standards (NAAQS) in §50.16. The lead NAAQS set forth in this section will no longer apply to an area one year after the effective date of the designation of that area, pursuant to section 107 of the Clean Air Act, for the lead NAAQS set forth in §50.16; except that for areas designated nonattainment for the lead NAAQS set forth in this section as of the effective date of §50.16, the lead NAAQS set forth in this section will apply until that area submits, pursuant to section 191 of the Clean Air Act, and EPA approves, an implementation plan providing for at-

tainment and/or maintenance of the lead NAAQS set forth in §50.16.

(Secs. 109, 301(a) Clean Air Act as amended (42 U.S.C. 7409, 7601(a)))

[43 FR 46258, Oct. 5, 1978, as amended at 73 FR 67051, Nov. 12, 2008]

## § 50.13 National primary and secondary ambient air quality standards for PM<sub>2.5</sub>.

- (a) The national primary and secondary ambient air quality standards for particulate matter are 15.0 micrograms per cubic meter ( $\mu g/m^3$ ) annual arithmetic mean concentration, and 35  $\mu g/m^3$  24-hour average concentration measured in the ambient air as PM<sub>2.5</sub> (particles with an aerodynamic diameter less than or equal to a nominal 2.5 micrometers) by either:
- (1) A reference method based on appendix L of this part and designated in accordance with part 53 of this chapter; or
- (2) An equivalent method designated in accordance with part 53 of this chapter.
- (b) The annual primary and secondary  $PM_{2.5}$  standards are met when the annual arithmetic mean concentration, as determined in accordance with appendix N of this part, is less than or equal to 15.0  $\mu g/m^3$ .
- (c) The 24-hour primary and secondary PM<sub>2.5</sub> standards are met when the 98th percentile 24-hour concentration, as determined in accordance with appendix N of this part, is less than or equal to  $35~\mu \rm g/m^3$ .

[71 FR 61224, Oct. 17, 2006]

## § 50.14 Treatment of air quality monitoring data influenced by exceptional events.

- (a) Requirements. (1) A State may request EPA to exclude data showing exceedances or violations of the national ambient air quality standard that are directly due to an exceptional event from use in determinations by demonstrating to EPA's satisfaction that such event caused a specific air pollution concentration at a particular air quality monitoring location.
- (2) Demonstration to justify data exclusion may include any reliable and accurate data, but must demonstrate a clear causal relationship between the

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measured exceedance or violation of such standard and the event in accordance with paragraph (c)(3)(iv) of this section.

- (b) Determinations by EPA. (1) EPA shall exclude data from use in determinations of exceedances and NAAQS violations where a State demonstrates to EPA's satisfaction that an exceptional event caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section.
- (2) EPA shall exclude data from use in determinations of exceedances and NAAQS violations where a State demonstrates to EPA's satisfaction that emissions from fireworks displays caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section. Such data will be treated in the same manner as exceptional events under this rule, provided a State demonstrates that such use of fireworks is significantly integral to traditional national, ethnic, or other cultural events including, but not limited to July Fourth celebrations which satisfy the requirements of this section.
- (3) EPA shall exclude data from use in determinations of exceedances and NAAQS violations, where a State demonstrates to EPA's satisfaction that emissions from prescribed fires caused a specific air pollution concentration in excess of one or more national ambient air quality standards at a particular air quality monitoring location and otherwise satisfies the requirements of this section provided that such emissions are from prescribed fires that EPA determines meets the definition in §50.1(j), and provided that the State has certified to EPA that it has adopted and is implementing a Smoke Management Program or the State has ensured that the burner employed basic smoke management practices. If an exceptional event occurs using the basic smoke management practices approach, the State must undertake a review of its approach to ensure public health is being protected

and must include consideration of development of a SMP.

- (4) [Reserved]
- (c) Schedules and Procedures. (1) Public notification.
- (i) All States and, where applicable, their political subdivisions must notify the public promptly whenever an event occurs or is reasonably anticipated to occur which may result in the exceedance of an applicable air quality standard.
  - (ii) [Reserved]
  - (2) Flagging of data.
- (i) A State shall notify EPA of its intent to exclude one or more measured exceedances of an applicable ambient air quality standard as being due to an exceptional event by placing a flag in the appropriate field for the data record of concern which has been submitted to the AQS database.
- (ii) Flags placed on data in accordance with this section shall be deemed informational only, and the data shall not be excluded from determinations with respect to exceedances or violations of the national ambient air quality standards unless and until, following the State's submittal of its demonstration pursuant to paragraph (c)(3) of this section and EPA review, EPA notifies the State of its concurrence by placing a concurrence flag in the appropriate field for the data record in the AQS database.
- (iii) Flags placed on data as being due to an exceptional event together with an initial description of the event shall be submitted to EPA not later than July 1st of the calendar year following the year in which the flagged measurement occurred, except as allowed under paragraph (c)(2)(iv) or (c)(2)(v) of this section.
- (iv) For PM<sub>2.5</sub> data collected during calendar years 2004–2006, that the State identifies as resulting from an exceptional event, the State must notify EPA of the flag and submit an initial description of the event no later than October 1, 2007. EPA may grant an extension, if a State requests an extension, and permit the State to submit the notification of the flag and initial description by no later than December 1, 2007.
- (v) For lead (Pb) data collected during calendar years 2006-2008, that the

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State identifies as resulting from an exceptional event, the State must notify EPA of the flag and submit an initial description of the event no later than July 1, 2009. For Pb data collected during calendar year 2009, that the State identifies as resulting from an exceptional event, the State must notify EPA of the flag and submit an initial description of the event no later than July 1, 2010. For Pb data collected during calendar year 2010, that the State identifies as resulting from an exceptional event, the State must notify EPA of the flag and submit an initial description of the event no later than May 1, 2011.

(vi) When EPA sets a NAAQS for a new pollutant or revises the NAAQS for an existing pollutant, it may revise or set a new schedule for flagging exceptional event data, providing initial data descriptions and providing detailed data documentation in AQS for the initial designations of areas for those NAAQS. Table 1 provides the schedule for submission of flags with initial descriptions in AQS and detailed documentation. These schedules shall apply for those data which will or may influence the initial designation of areas for those NAAQS. EPA anticipates revising Table 1 as necessary to accommodate revised data submission schedules for new or revised NAAQS.

TABLE 1—SPECIAL SCHEDULES FOR EXCEPTIONAL EVENT FLAGGING AND DOCUMENTATION SUBMISSION FOR DATA TO BE USED IN INITIAL DESIGNATIONS FOR NEW OR REVISED NAAQS

NAAQS pollutant/ standard/(level)/ promulgation date	Air quality data collected for calendar year	Event flagging & initial description deadline	Detailed documentation submission deadline
PM <sub>2.5</sub> /24-Hr Standard (35 μg/ m³) Promulgated October 17, 2006.	2004–2006	October 1, 2007	April 15, 2008.
Ozone/8-Hr Standard (0.075 ppm) Promulgated March 12, 2008.	2005–2007 2008	June 18, 2009	June 18, 2009. June 18, 2009. 60 days after the end of the calendar quarter in which the event occurred or Feb- ruary 5, 2010, whichever date occurs first.
NO <sub>2</sub> /1-Hr Standard (100 ppb) Promulgated February 9, 2010. SO <sub>2</sub> /1-Hr Standard (75 ppb) Promulgated June 22, 2010.	2008	July 1, 2010 July 1, 2010 April 1, 2011 October 1, 2010 October 1, 2010 June 1, 2011 Go days after the end of the calendar quarter in which the event occurred or March 31, 2012, whichever date occurs first.	January 22, 2011. January 22, 2011. July 1, 2011. June 1, 2011. June 1, 2011. June 1, 2011. Go days after the end of the calendar quarter in which the event occurred or March 31, 2012, whichever date occurs first.
PM <sub>2.5</sub> /Primary Annual Standard (12 μg/m³) Promulgated December 14, 2012.	2010 and 2011 2012 2013	July 1, 2013 July 1, 2013 <sup>a</sup> July 1, 2014 <sup>a</sup>	December 12, 2013. December 12, 2013. August 1, 2014.

<sup>&</sup>lt;sup>a</sup>This date is the same as the general schedule in 40 CFR 50.14.

NOTE: The table of revised deadlines only applies to data EPA will use to establish the initial area designations for new or revised NAAQS. The general schedule applies for all other purposes, most notably, for data used by the EPA for redesignations to attainment.

(3) Submission of demonstrations.(i) A State that has flagged data as being due to an exceptional event and is requesting exclusion of the affected measurement data shall, after notice and opportunity for public comment,

submit a demonstration to justify data exclusion to EPA not later than the lesser of, 3 years following the end of the calendar quarter in which the flagged concentration was recorded or, 12 months prior to the date that a regulatory decision must be made by EPA. A State must submit the public comments it received along with its demonstration to EPA.

(ii) A State that flags data collected during calendar years 2004–2006, pursuant to paragraph (c)(2)(iv) of this section, must adopt the procedures and requirements specified in paragraph (c)(3)(i) of this section and must include a demonstration to justify the exclusion of the data not later than the submittal of the Governor's recommendation letter on nonattainment

(iii) A State that flags Pb data collected during calendar years 2006-2009, pursuant to paragraph (c)(2)(v) of this section shall, after notice and opportunity for public comment, submit to EPA a demonstration to justify exclusion of the data not later than October 15, 2010. A State that flags Pb data collected during calendar year 2010 shall, after notice and opportunity for public comment, submit to EPA a demonstration to justify the exclusion of the data not later than May 1, 2011. A state must submit the public comments it received along with its demonstration to EPA.

- (iv) The demonstration to justify data exclusion shall provide evidence that:
- (A) The event satisfies the criteria set forth in 40 CFR 50.1(j);
- (B) There is a clear causal relationship between the measurement under consideration and the event that is claimed to have affected the air quality in the area:
- (C) The event is associated with a measured concentration in excess of normal historical fluctuations, including background; and
- (D) There would have been no exceedance or violation but for the event.
- (v) With the submission of the demonstration, the State must document that the public comment process was followed.

[72 FR 13580, Mar. 22, 2007; 72 FR 28612, May 22, 2007; 73 FR 67051, Nov. 12, 2008; 74 FR 70598, Nov. 21, 2008; 74 FR 23312, May 19, 2009; 75 FR 6531, Feb. 9, 2010; 75 FR 35592, June 22, 2010; 78 FR 3277, Jan. 15, 2013]

### §50.15 National primary and secondary ambient air quality standards for ozone.

(a) The level of the national 8-hour primary and secondary ambient air quality standards for ozone  $(O_3)$  is 0.075

parts per million (ppm), daily maximum 8-hour average, measured by a reference method based on appendix D to this part and designated in accordance with part 53 of this chapter or an equivalent method designated in accordance with part 53 of this chapter.

(b) The 8-hour primary and secondary  $O_3$  ambient air quality standards are met at an ambient air quality monitoring site when the 3-year average of the annual fourth-highest daily maximum 8-hour average  $O_3$  concentration is less than or equal to 0.075 ppm, as determined in accordance with appendix P to this part.

[73 FR 16511, Mar. 27, 2008]

## §50.16 National primary and secondary ambient air quality standards for lead.

- (a) The national primary and secondary ambient air quality standards for lead (Pb) and its compounds are 0.15 micrograms per cubic meter, arithmetic mean concentration over a 3-month period, measured in the ambient air as Pb either by:
- (1) A reference method based on appendix G of this part and designated in accordance with part 53 of this chapter or:
- (2) An equivalent method designated in accordance with part 53 of this chapter.
- (b) The national primary and secondary ambient air quality standards for Pb are met when the maximum arithmetic 3-month mean concentration for a 3-year period, as determined in accordance with appendix R of this part, is less than or equal to 0.15 micrograms per cubic meter.

[73 FR 67052, Nov. 12, 2008]

# § 50.17 National primary ambient air quality standards for sulfur oxides (sulfur dioxide).

- (a) The level of the national primary 1-hour annual ambient air quality standard for oxides of sulfur is 75 parts per billion (ppb, which is 1 part in 1,000,000,000), measured in the ambient air as sulfur dioxide (SO<sub>2</sub>).
- (b) The 1-hour primary standard is met at an ambient air quality monitoring site when the three-year average of the annual (99th percentile) of the